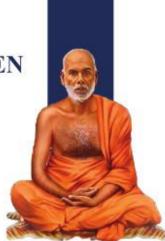


SREE NARAYANA COLLEGE FOR WOMEN

KOLLAM, KERALA- 691 001

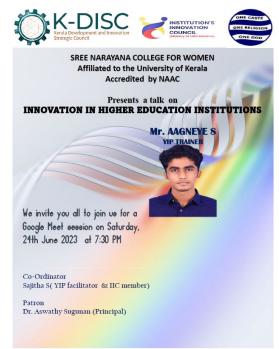


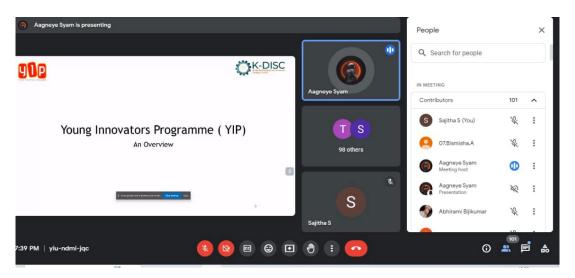
ACTIVITY REPORT ON RESEARCH METHODOLOGY, INTELLECTUAL PROPERTY RIGHTS (IPR) & ENTREPRENEURSHIP 2023-24



TALK ON 'INNOVATION IN HIGHER EDUCATION INSTITUTIONS'

In association with Kerala Development and Innovation Strategic Council (K-Disc), an expert talk on 'INNOVATION IN HIGHER EDUCATION INSTITUTIONS' has been conducted on 24th June 2023 in online mode. Sajitha S, Assistant Professor, Department of Commerce has co-ordinated the programme. The talk was delivered by Young Innovator Programme (YIP) trainer, Mr. AAGNEYE S. Around 90 students participated in the programme. The programme was intended to train students and make them able to participate in YIP programme of Government of Kerala.





Online talk on 'Innovation in Higher Education Institutions'

WORKSHOP ON MUSHROOM CULTIVATION TECHNIQUES

A workshop on mushroom cultivation techniques has been conducted by Institution Innovation Council in association with department of Botany on 17th November 2023. The welcome address was given by Dr. Devipriya S, co-ordinator of the workshop. The workshop has been inaugurated by Dr. Aswathy Sugunan, Principal in Charge, Sree Narayana College for Women, Kollam. Felicitation speeches were delivered by Dr. S. Sekaran, Professor, Department of Botany, Dr. Asha Bhanu A V, President, IIC and Dr. Poornima Vijayan P, Vice President, IIC. Mr. K. Ajay, Director, Surya Agrotek, Thiruvananthapuram handled the classes for the students. Both theory and practical sessions were provided to the students. Our students were well equipped with the Mushroom Cultivation Techniques during the workshop.





HANDS-ON LED ASSEMBLY & REPAIR WORKSHOP

A one-day workshop on 'Hands-on LED Assembly & Repair' was organized by the PG & Research Department of Physics in association with the Institution Innovation Council of Sree Narayana College for Women, Kollam on 1st December 1, 2023. The primary objective of the workshop was to instruct participants how to assemble high-performance LED Tubes and Bulbs in an efficient and cost-effective manner with a focus on enhancing their electronic skills. Additionally, the program aimed to create awareness within community about the significance and benefits of energy-efficient appliances.

The workshop adopted a variety of learning methods to achieve its objectives:

- Lecture Session: Participants were introduced to the basics of LED technology. Theoretical knowledge about the components and functioning of LEDs was shared in a simple and understandable manner.
- Demonstration-cum-Discussion: Practical demonstrations were conducted to show participants how to assemble LED Tubes and Bulbs. A discussion followed, allowing participants to ask questions and engage in conversations about the processes involved.
- Group Work: Participants engaged in hands-on group activities where they assembled LED Tubes and Bulbs under the guidance of experienced instructors.

Pre-Workshop Initiative Overview:

Before the commencement of the workshop, several key initiatives were undertaken to ensure its success:

Distribution of Workshop Brochures: The workshop brochures were distributed to various departments of the college. This step was crucial in reaching out to potential participants and generating interest in the upcoming workshop.

Participant Registration: A total of 40 enthusiastic participants registered for the workshop. This diverse group of participants reflected the inclusive nature of the initiative.

Registration Fee Collection: To facilitate the logistics of the workshop, a nominal registration fee was collected from the participants. This fee utilized to purchase essential materials for LED assembly kit.

Distribution of Workshop Kits: As a practical and hands-on aspect of the workshop, each registered participant received a workshop kit. This kit included essential materials for both

LED assembly and the creation of an extension board, enhancing the participants' engagement and enabling them to apply their newfound knowledge in real-time activities.

These pre-workshop initiatives not only laid the groundwork for a well-attended and organized event but also ensured that participants were adequately equipped and informed before the workshop began. The active participation of 40 registered individuals reflected the success of these initiatives in creating interest and engagement among the college community.

Inaugural Session Highlights:

The inaugural session of the workshop commenced at 10 am with a prayer song, then the event began with the ceremonial lighting of the lamp. Mrs. Krishnasree, Assistant Professor, Department of Physics extended a warm welcome to the dignitaries gracing the stage. Mrs. Priyadarsini, Assistant Professor and Head of the Department, presided over the function. Dr. Aswathy Sugunan, the Principal of SN Women's College, inaugurated the program, marking the official commencement of the workshop. The technical session followed, expertly conducted by Dr. I John Berlin, Assistant Professor of Physics at Marthoma College, Thiruvalla. A special moment of appreciation was reserved for the Chief Guest, who was honored with a memento as a token of gratitude. The program received additional support and goodwill through felicitations by Prof. Dr. S. Sekharan, IQAC Coordinator and Professor of Botany, and Dr. Asha Bhanu, Assistant Professor of Chemistry and President of IIC. Mrs. Resmi. S, Assistant Professor of Physics and the coordinator of the workshop, eloquently expressed her gratitude in the vote of thanks, acknowledging the presence of esteemed guests and the active participation of the attendees. Following the inspiring inaugural session, participants enjoyed a Tea-Snack break, fostering a relaxed atmosphere for networking and informal interactions.



Practical Session Highlights:

The practical session of the workshop unfolded with a comprehensive class on electronics led by Dr. John Berlin. Delving into the applications of electronics in our everyday lives, Dr. Berlin emphasized the workshop's potential to empower participants in repairing electrical appliances within their homes. He provided a detailed insight into lab maintenance, electrical components, practical applications, and safety precautions, setting the stage for an enlightening session.

The interactive class transitioned into a hands-on demonstration of constructing LED tubes, where Dr. Berlin meticulously explained each component. The participants actively engaged in the session, gaining practical skills and knowledge. A significant aspect of the training involved hands-on experience in soldering wires using a soldering iron and solder wire.

After a revitalizing post-lunch session, participants independently constructed around 20 LED tubes. These tubes were later distributed to the participants for personal use, fostering a sense of accomplishment. Dr. Berlin proceeded to demonstrate the detailed process of creating LED bulbs and extension cables, providing valuable insights. Participants eagerly put their newfound skills to use, actively contributing to the creation of LED bulbs and extension boards. This practical application not only enhanced their understanding but also equipped them with strategies to reduce electricity usage at home.

At the end of the session feedback was provided by the students and teachers, creating a constructive dialogue for improvement. On the subsequent day, participants were handed their manufactured tubes, bulbs, and certificates, marking the successful conclusion of a workshop that not only imparted practical skills but also inspired sustainable practices in electricity usage at home.



Practical session of the workshop on 'Hands-on LED Assembly & Repair'

Exhibition and Market Success

The LED bulbs and tubes crafted during the workshop took center stage at the 'Food & Craft Products Exhibition,' a vibrant showcase organized by Sree Narayana Women's College, Kollam. This exhibition served as a platform to showcase the outcomes and achievements of the workshop. Around 5 tubes and 22 bulbs were also sold at the exhibition. The sale of these LED tubes and bulbs during the fest not only demonstrated the quality of the products but also contributed to a unique concept of "Earn while you learn." This aspect emphasized the practical applicability of the workshop, providing students with an opportunity to not only enhance their skills but also earn income through the sale of the products they had manufactured. The success at the exhibition further underscored the real-world impact of the workshop, turning it into a sustainable and empowering experience for the participating students.



EARN WHILE YOU LEARN- EXHIBITION

As part of the Earn While You Learn Program, Institute Innovation Council of Sree Narayana College for Women, Kollam organised an exhibition and sale on food and craft items on December 12, 2023. The event has been named as 'Where Craft Meets Cuisine'. The college principal, Dr. Aswathy Sugunan, inaugurated the exhibition. Students got an opportunity to sell their own products in college. Around 50 teachers and 1000 students participated in this programme. The college provided students with the ability to market their own items to other students. There was a significant amount of participation from both the teachers and the students at this college.



INNOVATION TALK AND YIP 0.6 ORIENTATION

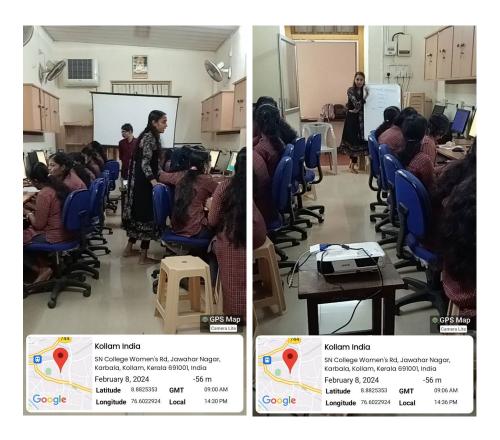
Institution Innovation Council, Sree Narayana College for Women, Kollam organised an orientation programme on the Young Innovators Programme (YIP) of K-DISC, Government of Kerala on 10th January 2024 at 10 a m. The welcome statement by Smt. Sajitha S, the YIP facilitator, kicked off the activity. Dr. Aswathy Sugunan, the college principal, presided over the meeting. Mr. Justin B, the zonal manager for K-DISC, Trivandrum and Kollam, was the main guest of this session. He presented the YIP idea registration procedure in detail. On this occasion, our college's YIP 4.0 state winners were congratulated by our principal. The session ended with the vote of Thanksgiving by Dr. Poornima Vijayan P (IIC Vice President).





WORKSHOP ON DATA SCIENCE

The Post graduate department of Economics in association with Institutions Innovation Council conducted a two-day workshop on 'Data Science' in collaboration with Phi scape, Kollam from 8-9 Feb 2024. Swathimol (MSc Statistics with specialization in Data Analysis), Experienced Data Analyst, and Maanas Manoj (BTech EEE) were the resource persons for the workshop. The topics covered in the workshop were Introduction to Data Science, Python Programming: Installation, Execution of basic commands, Datatypes and operators, Importing packages in Python, Getting data into Python, Data preprocessing and analysis using Python, Data visualization using Python, Saving output in Python, R Studio: Installation, Basic coding in R, Execution of commands in R, Importing packages, Getting data into R, Data visualization using R and Regression model using R.



WEBINAR ON BEYOND THE DEGREE "WHAT IS EXPERIMENTAL IN ECONOMICS"

Department of Economics organized a webinar on "What is Experimental in Economics" as part of international webinar series Dialectics 2024, on 10th February 2024, 3:00 pm. On behalf of the multidisciplinary international webinar series DIALECTICS 2024 organised by the Sree Narayana College for Women - the seminar *"What is Experimental in Economics*" is organised by our PG Department of Behavioral Economics on 10th February 2024 at 3 pm on the online platform. We got a dynamic response person **Mr. Nandu Sasidharan Nair** a Research scholar of three Universities - University of Florence, Pisa and Siena Italy and a co-founder of Economiga. Dr. Prabhavathy C Co-ordinator of this Seminar our respected principal and all other participants to this section. Professor and head of the Department Dr. Sindhu Pratap preside over the section and delivered presidential address. Comparing of the program was done by Diya third DC student. Sixty-five members participated on the section. Technical section was highly informative to both students and teachers. The section was concluded on 4.15. Dr Aparna Das Assistant professor in Economics extended auto thanks to the participants.



<u>WEBINAR ON "MECHANICAL REINFORCEMENT OF POLYMER</u> <u>COLLOIDAL CRYSTALS BY SUPER CRITICAL FLUIDS"</u>

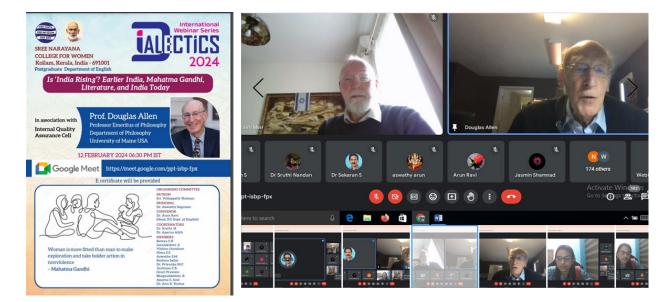
As a part of the International Webinar Series **DIALECTICS 2024** by Sree Narayana College for Women Kollam, in association with the IQAC, the PG & Research Department of Physics organized an invited talk on "**Mechanical reinforcement of polymer colloidal crystals by super critical fluids**" on February 12, 2024, at 2 pm. through Google Meet. Webinar started with the welcome speech by Priyadarsini G, Head of the Department, Department of Physics, Sree Narayana College for Women, Kollam. Our Principal Dr Aswathy Sugunan Presided over the function. The session was handled by **Jeena Varghese** (PhD scholar, Adam Mickiewicz University, Pozan, Poland). She introduced and described supercritical fluids and their reinforcement on polymer colloidal crystals. The presentation session ended at around 3:15 pm and followed by a 15 minutes discussion session was held. Webinar came to an end by the vote of thanks by Dr Prabha Jyothi P S (Co-ordinator), Assistant Professor, Department of Physics, Sree Narayana College for Women, Kollam. It was an informative and useful session for PG and UG students.



Invited talk on "Mechanical reinforcement of polymer colloidal crystals by super critical fluids"

WEBINAR ON "IS 'INDIA RISING?' - EARLIER INDIA, MAHATMA GANDHI, LITERATURE, AND INDIA TODAY "

As part of the International Webinar Series DIALECTICS 2024, hosted by Sree Narayana College for Women, Kollam, in collaboration with the Internal Quality Assurance Cell, the Department of English organized an invited talk titled "Is 'India Rising?' - Earlier India, Mahatma Gandhi, Literature, and India Today" on February 12, 2024, at 6:30 PM via Google Meet. Prof. Douglas Allen, Professor Emeritus of Philosophy in the Department of Philosophy at the University of Maine, USA, led the session. His profound discussion on the topic offered valuable insights and left a lasting impact on all attendees. The engaging and insightful lecture was a grand success with an interactive session and the presence of around 190 participants. Dr. Sruthi N., co-ordinator of the webinar introduced the speaker. Prof. Dr Sekaran S, Coordinator, IQAC rendered the felicitation. Dr. Aparna Ajith, the co-ordinator of the webinar proposed the vote of thanks.

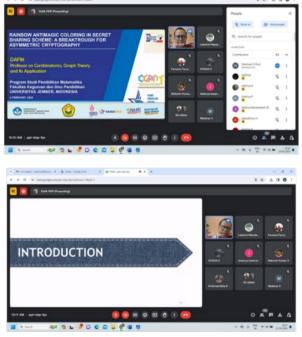


WEBINAR ON "IS 'INDIA RISING?' - EARLIER INDIA, MAHATMA GANDHI, LITERATURE, AND INDIA TODAY

<u>WEBINAR ON "RAINBOW VERTEX ANTIMAGIC COLORING IN</u> <u>SECRET SHARING SCHEME- A BREAKTHROUGH FOR</u> <u>ASYMMETRIC CRYPTOGRAPHY"</u>

The Department of Mathematics, S. N. College for Women, Kollam organized a webinar on **"Rainbow Vertex Antimagic Coloring in Secret Sharing Scheme- A Breakthrough for Asymmetric Cryptography"** on 13/02/2024, Tuesday at 10.00am. Around 110 participants comprising of faculties and students from various colleges participated in the programme. Ms. Silpa Suresh, Assistant Professor of Mathematics delivered the welcome speech. She extended a warm welcome to the Principal Dr. Aswathy Sugunan, the resource person **Dr. DAFIK**, Professor in Combinatorics and Graph Theory, Universitas Jember, Indonesia. Dr. Dafik gave a detailed description about the rainbow colouring, cryptography and symmetric encryptions. He talked about the advancement in the field of cyber security one that promises to revolutionize the way we approach secure communications and data protection. Later he joined in the discussion session based on the talk. Ms. Vishnumaya S., third B.Sc. student expresses special gratitude to Dr. Dafik for his informative talk. She also expresses gratitude to the Principal Dr. Aswathy Sugunan, IQAC coordinator Dr. Sekaran S and webinar coordinator Dr. Devipriya D for support in conducting the webinar and shared thanks to all the participants in making the event a great success.





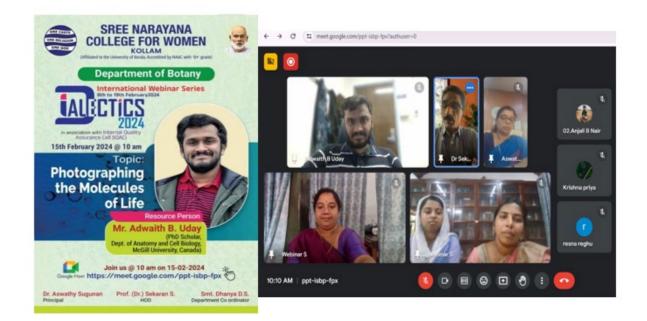
WEBINAR ON "DECODING CERA INSCRIPTIONS"

The Department of History at Sree Narayana College, Kollam, organized an insightful webinar focused on the **"Decoding Cera Inscriptions."** The session was led by the distinguished resource person, **Mr. Ajith Marutha Veeren**, an expert in the field. The webinar commenced with a welcome speech by Mr. Shibu T, the Head of the Department of History, who greeted the participants and set a positive tone for the event. Ms. Lalini M, Assistant Professor in the Department of History, introduced the resource person, Mr. Ajith Marutha Veeren, highlighting his significant contributions to historical studies and his expertise in ancient inscriptions, particularly the De-Cera inscriptions. Dr. Aswathy Sugunan presided over the session, adding valuable perspectives on the importance of inscriptions in understanding cultural and historical contexts. The session was attended by various research scholars, students, and faculty members from the college, who engaged actively throughout the webinar. The webinar concluded with a vote of thanks by Mr. Mani V, Assistant Professor, expressing gratitude to the resource person, participants, and organizers. The session provided a rich learning experience, shedding light on the De-Coding Cera inscriptions and encouraging further research and exploration in the field.



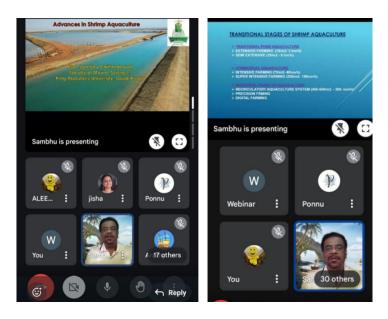
WEBINAR ON "PHOTOGRAPHING THE MOLECULES OF LIFE'

Department of Botany organized a webinar on "**Photographing the molecules of Life**" as the part of international webinar series Dialectics 2024 of Sree Narayana College for women, Kollam. It was held on 15th February 2024,10 am in Google meet platform. The programme was started at 10 am with the welcome address by Dr. S Sekaran, HOD, presided over by Principal Dr. Aswathy Sugunan. The session was handled by **Adwaith B Uday**, PhD Scholar, Dept. Of Cell and molecular biology, McGill University, Canada. He explained the complex molecular structure of nucleic acids and proteins. He pointed out the importance of structural biology in the advancement field of molecular docking and drug designing. He also explained the working and use of Cryoelectron Microscope for elucidating 3D structure of biomolecules. Around 85 participants including faculty members, students and research scholars of various colleges have attended the webinar. The webinar got a wide acceptance and positive feedback. E- certificates were provided for the participants.



WEBINAR ON "IMPORTANCE OF AQUACULTURE AND LATEST TECHNIQUES IN SHRIMP FARMING"

Department of Zoology conducted an international webinar as a part of our college webinar series "Dialectics 2023-24" It was held on 16th February 2024 at 1.30 pm in Google meet platform. The programme was initiated at 1.30 pm with the welcome address by Dr. S Usha, Professor & amp; HOD in Zoology. Ms. Aswathy Sugunan, Principal in charge, S N College for Women, gave presidential address. The resource person for this event was **Dr Sambhu Chidambaran** from King Abdulaziz University, Saudi Arabia. The seminar witnessed an active participation from students and teachers of various Departments. It was a very informative session which helped everyone to imbibe knowledge on **Importance of Aquaculture and latest techniques in Shrimp farming**. Use of sensors for data collection and robotic feeding etc were well explained. In this method, robotic feeders get the data from real-time water quality monitoring and adjusts the necessary feed quantity according to the quality of the water. All this results in excellent productivity. The programme concluded with the vote of thanks by Ms. Jisha S, Assistant Professor, Dept. of Zoology.



WEBINAR ON "KALIDASA KAVITHAYUDE RASHTREEYA SOUNDARYA SASTHRAM"

In connection with Dielectics 2024, the Dept. of Malayalam conducted an international webinar on "**Kalidasakavithayide Rashtreeya Soundarya sasthram**". Resource person for the session was **Dr. T. T. Sreekumar**, Professor, Department of School of Interdisciplinary Studies, Director, Educational Multimedia Research Center (EMMRC), The English & Foreign Languages University of Hydrabad. In his talk he expressed that literature is an expansion of theology. By quoting contexts from the writings of Kalidasa he opined that Kalidasa was not obliged to the Government, but rejected or opposed the suppressive administration. He also explained that open space is the favourite metaphor of Kalidasa, in the context of male and female relationships. He evaluated poems of kalidasa like 'Meghasandesa 'as resistance against sexual suppression. After the speech Dr. T. T. Sreekumar had an interaction with the students. College Principal Dr. Aswathi Sugunan presided over the webinar and Dr. Lekshmi. V. S. HoD, Department of Malayalam welcomed the participants. Dr. Neelima Jayadevan, convenor of the webinar delivered vote of thanks.



WEBINAR ON "WATER CYCLE DYNAMICS IN THE WESTERN GHATS: WHAT DO ISOTOPES CONVEY?"

The Department of Geography at Sree Narayana College for Women, Kollam, organized a webinar on the topic **"Water Cycle Dynamics in the Western Ghats: What Do Isotopes Convey?"** on 18/02/2024 at 10:00 am. It was organized as part of the esteemed International webinar series "Dialectics" conducted by IQAC, Sree Narayana College for Women, Kollam. **Dr. Saranya Puthalath**, a Postdoctoral Scientist from Kansas State University, Manhattan, United States, graced the event as the resource person. Dr. Saranya Puthalath provided profound insights into the role of isotopic analysis in understanding the movement, sources, and transformations of water in this ecologically vital region.



WEBINAR ON "MICROBIOLOGY THROUGH TIME: FROM LEEUWENHOEK'S DISCOVERIES TO THE AI REVOLUTION"

The webinar started at 6.00 pm am with more than 80 delegates including UG students of Microbiology as well as Biotechnology and lectures from various disciplines. The programme was hosted by Dr. S K Subhash, Assistant Professor of Microbiology and Mr. Vishnu S.L, Assistant Professor of Biochemistry gave the technical support for the webinar. Dr. Remya A S, Head of the Department delivered welcome speech. Dr. RANJITH KANJUR, Lecturer, Applied Biology, Department of Applied Sciences, University of Technology and Applied Science, Muscat, Oman was the resource person and gave a wonderful talk on "Microbiology Through Time: From Leeuwenhoek's Discoveries to the AI Revolution". The whole webinar was interesting and worth listening to. His way of presentation deserves huge appreciation. He began from the origin of the microbiology and ended with the possible revolution in microbiology through the application of Artificial Intelligence (AI).



Webinar on "Microbiology through time: From Leeuwenhoek's discoveries to the AI revolution"

WEBINAR ON " BHAKTHI KALEEN HINDI KAVITHA KA SAHITHYIK SAMAJIK MAHATHVA "

Dr Sitare Hind was the chief guest. Dr Sheeba M R officially welcomed the chief guest. Department HoD Prof (Dr) Manju A Chaired the session.SitareHind delivered a lecture on **"Bhakthi kaleen Hindi kavitha ka sahithyik samajik mahathva".** In his view "the poetry of bhakthi era there was a contemporary influence evident. Poiet of that time incorporateed reflections of their current environment, social nuisance and personal experiences into their devotional compositions". The seminar was very informative. About 100 students participated. Dr Reshma PP Webinar Co Ordinator deliverd the vote of thanks.



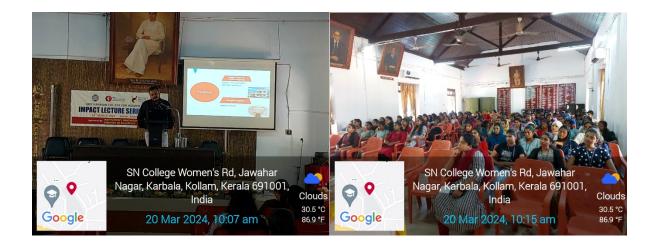
IMPACT LECTURE 2024

Impact lecture funded by Institutions' Innovation Council was conducted on 20th March 2024. The programme was started on 9.30 am. The welcome speech was delivered by Dr. Poornima Vijayan P, Co-ordinator of the event. The event has been inaugurated by Dr. Aswathy Sugunan, Principal, Sree Narayana College for Women, Kollam. Around 130 students and 12 faculty members were participated in the event.

The first session of the lecture series was on IPR. The session was handled by two patent experts from Kerala State Council for Science, Technology & Environment (KSCSTE), Thiruvananthapuram, Kerala. The first lecture was delivered by Mr. Safikh, Technical Officer, Kerala State Council for Science, Technology & Environment (KSCSTE) on the topic 'IPR-Tool to Protect Inventions and Creations'. The second lecture was delivered by Dr. Asha R, Project Scientist II, Patent Information Centre, Kerala State Council for Science, Technology & Environment (KSCSTE) on the topic 'An Introduction to Patent Search and Search Strategy Development'. The second session was on 'Entrepreneurship'. The session was delivered by Mr. Anoop R, Managing Partner, Prominent, Manufactures of Lab Equipment, on the topic 'The rise of a resilient solopreneur: Charting a new path to entrepreneurial successes. Small refreshments were provided for the students after each lecture. The impact lecture was a big success and was useful to the students who have innovation and entrepreneurial ideas.



Inauguration of Impact Lecture Series 2023





Lecture session during Impact lecture 2024